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ABSTRACT

This is the sixth unit in a series that introduces population concepts into the eighth grade American history curriculum. (See SO 013 782 for an overview of the guide.) In Episode VI, the history topic is the rise of the cities and industrialization. This unit has five segments. Objectives are to help the student to (1) examine the lifestyles of people living in urban and rural areas, and the effects of this lifestyle on the birth and death rates in these two areas; (2) scrutinize the rural to urban trends that occurred in the U.S. population from 1790 to the present; (3) survey the east-west trends that occurred in the movement of the U.S. population from 1790 until the present; (4) examine the relationship between industrialization and urbanization in the United States; and (5) investigate reasons for the growth or lack of growth of cities in U.S. history and examine factors that may have been important to the settlement of cities. Activities include having students illustrate their conception of living in both a rural and urban area; reading, answering questions about, and pretending they are living in Billings, Montana, a railroad town; and mapping physical features, natural resources and the natural land and water access routes of a nearby city. (NE)

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RESOURCE MATERIAL DEVELOPMENT: POPULATION DYNAMICS IN EIGHTH GRADE AMERICAN HISTORY

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Episode VI
Industries, Cities and People

Florida State University
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INTRODUCTION

The eight multi-media units of which Industries, Cities and People is a part are designed to help the teacher introduce population concepts into the school curriculum. To assist the teacher in this task an "infusion" approach is used, (i.e., the units are introduced into the curriculum in conjunction with a related regular topic in the school-adopted program). The school-adopted program, in this instance, is American History, and an attempt is made to correlate history topics with population topics. The chart on the following page shows the exact correlations for all eight units. Although points of entry are suggested, it is expected that the teacher will make his own judgement as to when is the most propitious time to introduce each unit or population episode. Certainly, depending on how the teacher organizes his course, he may change the sequence of topics, or decide to concentrate and spend time on only a few episodes. Thus, he may decide to spend more than a week on the chosen topic and engage the class in extended activities.

There are two basic assumptions that underlie this series: (1) Since everyone is a population actor, (i.e., decisions are made everyday on such issues as where to buy a new home, how large a family to have, where to go on a vacation, or how to vote on a local zoning ordinance), we all need to understand population phenomena, and, (2) Since we consider population education to be a rational rather than an emotional process, we stress that population concepts are best taught in an inquiry framework where the causes and consequences of population changes are understood

and where alternatives are offered and the reasons or grounds for holding them are carefully presented and examined. Therefore, we have consistently rejected the use of propaganda or indoctrination in teaching and learning population matters.

More specifically, the Program aims at having students participate in the process of inquiry into the nature of human populations and the natural and human consequences of demographic change. Our main goal is to help the teacher and the students make rational decisions about population matters as members of their family and local community, as well as national and world communities, utilizing appropriate information sources and inquiry skills.

RESOURCE MATERIAL DEVELOPMENT
POPULATION DYNAMICS IN EIGHT GRADE AMERICAN HISTORY

	HISTORY TOPICS	POPULATION TOPICS
I.	European Exploration of the New World	Early Stages of the Demographic Transition; Components of Population Change
II.	European Colonization of the New World	Population distribution and Settlement patterns; population characteristics of settlers.
III.	The Late Colonial Period	Comparisons of factors affecting population size between the English and the colonists; effects of high birth rates on population growth in the colonies.
IV.	Union Under the Constitution	Taking a population census under Article I; comparisons made between the census of 1790 and 1970.
V.	Westward Movement, Civil War and Reconstruction	The Changing Regional Balance of the Population; black migration from the south; westward migration
VI.	The Rise of the Cities and Industrialization	Rural/urban differentials in the population; industrialization and the urbanization of America.
VII.	America Becomes a World Power	Immigration as a Component of Population Change
VIII.	United States and World Affairs	The United States in the third stage of the demographic transition; the infusion of technology into developing countries and its effect on population growth.

ORGANIZATION OF THE UNIT

Each unit is divided into two sections -- a teacher manual (TM) and a student manual (SM). The teacher manual includes the following:

Evaluation: This is an evaluation form which the teacher can use to measure the student's progress in learning about population matters and issues. The same instrument may be used before and following instruction as pretests and posttests. It is expected that the results of the tests will be used by the teacher to improve instruction. (See separate test booklet).

Goal: This is a statement of what the unit seeks to accomplish in a broad sense.

Objectives: These are specific statements expressed in behavioral terms as to what the unit and its component parts seek to achieve. The objectives, stated in terms of student behaviors, include both population content and inquiry process statements.

Hypotheses: These are potential statements of relationships which seek to explain population phenomena (e.g., relationships among population components -- mortality, fertility, migration -- or relationships between changes in population and changes in the socio-political world). While these hypotheses may serve as a broad framework for the pattern of questions and the classroom discussion they are not intended to be used in their present form. As part of the program they are intended primarily for teacher use. Students should

be encouraged to exercise their own judgement about the material and should generate their own hypotheses or generalizations, using their own words and expressions. One important thing to remember here is that forming a hypothesis is the beginning, not the end, of inquiring into population matters.

Background Information: Here the unit provides additional information to the teacher; (i.e., beyond what is available in the student manual). This section would be very important if the topic is complicated or quite new to the teacher and the class.

Materials and Equipment Needed: Student materials are organized around springboards. A springboard is a motivating and thought-provoking material which is used to open up discussion on a topic. Springboards can be produced in several forms including documents, poems, newspaper articles, artifacts, music, or audio-visuals. All the materials furnished in the student packet are normally listed here, as well as other resources and equipment required for a class session.

Procedures: This section provides instructions as to how the materials can be used. This section also includes a list of "What Will You Find Out?" and "What Do You Think?" questions that should be used in class. As was the case with the hypotheses, however, these questions should not be thought of as absolutes. Questions should be modified or new

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questions should be added, if necessary, but these changes should be kept to a minimum.

The student manual includes all the springboards which are prepared for classroom use. These materials are the colored pages in this manual, and in most cases should be made available in multiple copies. Each student is expected to have one complete set. In other cases, especially when audio-visuals are used, there is only one set for the entire class.

Each student springboard is marked according to the unit it belongs to. For example, SH-IV-1 means that the springboard is part of Unit IV and that is designed for Day 1. Each unit is divided into five-day segments, normally one class period a day. This does not mean that the teacher may not use the materials for extended periods of time. Rather than thinking of a fixed five-day framework, the teacher should think of a flexible use of materials which is in line with the overall instructional objectives.

For the teacher who wants to get additional information and suggestions on teaching population concepts through inquiry the following references might be useful:

Massialas, Byron G., and Jack Zevin, Creative Encounters in the Classroom: Teaching and Learning through Discovery, New York: John Wiley & Sons, 1967. Provides examples on inquiry teaching and learning and an exercise on classroom use of population charts.

Massialas, Byron G., Nancy F. Sprague, and Joseph B. Hurst, Social Issues through Inquiry: Coping in an Age of Crises, Englewood Cliffs,

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New Jersey: Prentice-Hall, Inc., 1975. Practical examples for teachers in dealing reflectively with social concerns in the classroom.

Nam, Charles B., ed., Population and Society, Boston: Houghton Mifflin, 1968. An anthology dealing with substantive population topics.

Options: A Study Guide to Population and the American Future, Washington, D. C.: Population Reference Bureau, 1973. Suggestions for teachers for introducing population ideas in the classroom. Related to the Commission Report and film on "Population Growth and the American Future."

Social Education, special issue on "Population Education," Vol. 36, No. 4 (April, 1972).

The study of population is not only important but it can be fun. We trust that you will try to teach and learn population concepts in this spirit and that our students will join us.

TM-VI--1

GOAL:

To examine the lifestyles of people living in urban and rural areas, and the effect of this lifestyle on the birth and death rates in these two areas.

OBJECTIVES:

1. The student will develop a conceptual understanding of the terms rural and urban.

2. The student will form hypotheses explaining why a person would desire to live in a rural or an urban area.

3. The student will examine the Census Bureau's definition of urban and rural, and compare it to his own conception of "rural" and "urban."

4. The student will examine the distribution of the population in a rural and an urban area.

5. The student will illustrate on paper his conception of a rural and an urban area and will form hypotheses about the effects of the lifestyle of the people in each area on the family size and death rate.

HYPOTHESES:

1. If a population is distributed between a rural and urban area, each area will fulfill certain needed functions for people of that area.

2. If a population is distributed between rural and urban areas, the people in each area may develop lifestyles which are appropriate to that area.

3. If a society has developed beyond the rural/agrarian stage, it may have a low concentration of population in the rural area and a high concentration of population in the urban area.

4. If a group of people live in an area that has a low concentration of population they may have larger families than a group of people that live in an area that has a high concentration of population.

5. If a group of people live in an area that has a low concentration of population they may have a lower death rate than a group of people that live in an area that has a high concentration of population.

BACKGROUND INFORMATION:

The population of the United States has always been distributed between urban and rural areas. Today's lesson focuses on the concepts of "rural" and "urban." The session will attempt to show the different lifestyles that may develop in each area and the effect these lifestyles may have on the family size and death rate of the population.

MATERIALS AND EQUIPMENT NEEDED:

..Slides of rural and urban scenes
..Class copies of Springboard #1 (Census Bureau's Definitions)
..Paper and pencils
..Class copies of Springboard #2 (Family Size and Death Rates in Rural and Urban Areas)

PROCEDURES:

I. The teacher should present the slide presentation without asking any questions. The slides depict different rural and urban scenes in the 20th century United States. After viewing the slides the teacher may use the following questions as a basis for class discussion.

WHAT DO YOU THINK?

1. What did you see in the slides? (Write the students' responses on the board.)
2. Can you group the items on the board into any similar categories? (Certain categories could be towns, cities, farms, suburban, rural areas, urban areas, etc.)
3. What are some of the differences you see between these groups?
4. Which area do you think has the highest concentration of people? Why?
5. Which area do you think has the lowest concentration of people? Why?

6. What would be some advantages of living in those areas that have the highest concentration of people? Disadvantages? Explain.

7. What would be some advantages of living in those areas with the lowest concentration of people? Disadvantages? Explain.

8. What is a "rural" area? What is an "urban" area?

9. Which area would you most like to live in? Why?

II. The teacher should give each student a copy of Springboard #1 (Census Bureau's Definitions) and explain that these are the distinctions the Census Bureau uses in determining population distribution in the United States. Ask the students how these definitions compare and contrast to their own definitions.

III. The teacher should give the students a piece of plain paper and ask them to pretend they are teenagers living in a rural and urban area. Ask the students to illustrate their conception of living in both a rural and urban area. If there is not enough class time allowed to complete the assignment, it may be given as homework. Day 2 allows extra time for the discussion of the students' pictures. After the pictures are completed the teacher should go over the following questions.

WHAT DO YOU THINK?

1. In your free time what activities would you be involved in if you lived in a rural area? in an urban area?

2. Are some of the activities the same? Explain.

3. Are some of the activities different? Explain.

4. Which area would have more people living close to each other? Why?

5. Which area would have people living farther away? Why?

6. What would be some advantages in living in an area that had many people close to you? Why?

7. What would be some disadvantages in living in an area that didn't have many people close by? Why?

8. Which area do you think it would be easier to raise a large family? Why?

9. If you got sick or hurt, would you rather live in a rural or urban area? Why?

10. If some people in your area had a communicable disease, would you rather be in a rural or urban area? Why?

11. In which area would you rather live? Explain.

IV. This activity may be done at the beginning of Day 2 also. The teacher should give each student a copy of Springboard #2 (Family Size and Death Rates in Rural and Urban Areas). The teacher may need to refer to Episode I to refresh the students' understanding of the concept of death rates. After examining these figures, the students can substantiate their hypotheses or reevaluate them.

SM-VI-1
Springboard #1

CENSUS BUREAU'S DEFINITIONS

Urban:

The urban population is comprised of all persons living in:

1. Places of 2,500 inhabitants or more, incorporated as cities, boroughs, villages, and towns.

2. The densely settled urban fringe, whether incorporated or incorporated or unincorporated, of urbanized areas.

Rural:

The rural population is comprised of all persons living in:

Places of less than 2,500 inhabitants or more.

Adapted from: United States Cepartment of Commerce, Department of Census. 1970 Census User's Guide. Washington, D.C., 1970.

SM-VI-1
Springboard #2

FAMILY SIZE AND DEATH RATES IN RURAL AND URBAN AREAS

Family Size per 1000 Total Women for Urban and Rural Areas

Urban	1.9
Rural	2.6

Adapted from: Characteristics of the Population, Volume II. United States Department of Commerce, Department of Census, 1970.

Death Rates by Race and Sex for Urban and Rural Areas

	Male	Female
White		
Urban	12.0	8.8
Rural	9.4	6.8
Non-white		
Urban	13.6	10.6
Rural	11.0	9.0

Bogue, Donald, The Population of the United States. New York: The Free Press of Glencoe, 1959.

TM-VI-2

GOAL:

To examine the rural to urban trends that occurred in the United States population from 1790 to the present.

OBJECTIVES:

1. The student will examine the percentage of people who lived in rural areas and the percentage of people who lived in urban areas from 1790 until today.

2. The student will form hypotheses explaining why the rural area has declined in population and the urban area has increased in population.

HYPOTHESES:

1. If a country becomes industrialized the proportion of people living in rural areas may decrease, and the proportion of people living in urban areas may increase.

2. As mechanization takes place in a society, fewer positions for people will be available in rural areas, while more positions will be available in factories and industries in urban areas.

BACKGROUND INFORMATION:

At the time of the first census in the United States in 1790, only 5.1 percent of the population lived in urban areas while 94.9 percent lived in rural areas. During each decade since 1790 (except 1810-1820), the urban population has grown at a faster rate than the rural. During the decades 1790 to 1840, the urban population grew roughly twice as fast as the rural area. Between 1860 and 1870 the urban population grew more than four times as fast as rural areas. From 1880 to 1930 urbanization proceeded at an even more rapid rate. The first census which showed over 50 percent of the population living in urban areas was taken in 1920. Today's lesson will focus on examining the rural to urban movement in United States history.

MATERIALS AND EQUIPMENT NEEDED:

..Class copies of Springboard #1 (Rural to Urban Percentage Charts)

PROCEDURES:

The teacher should have the students shade in the charts showing the changes in the percentage of the population living in urban and rural areas from 1790 to 1970. The following questions may be used as a basis for class discussion.

WHAT DID YOU FIND OUT?

1. What percentage of the people live in urban areas in 1790? In 1970?
2. What year was the first time more Americans lived in urban areas than rural areas?
3. There seems to be a steady rate of urban-rural population until 1840. What happens after that?

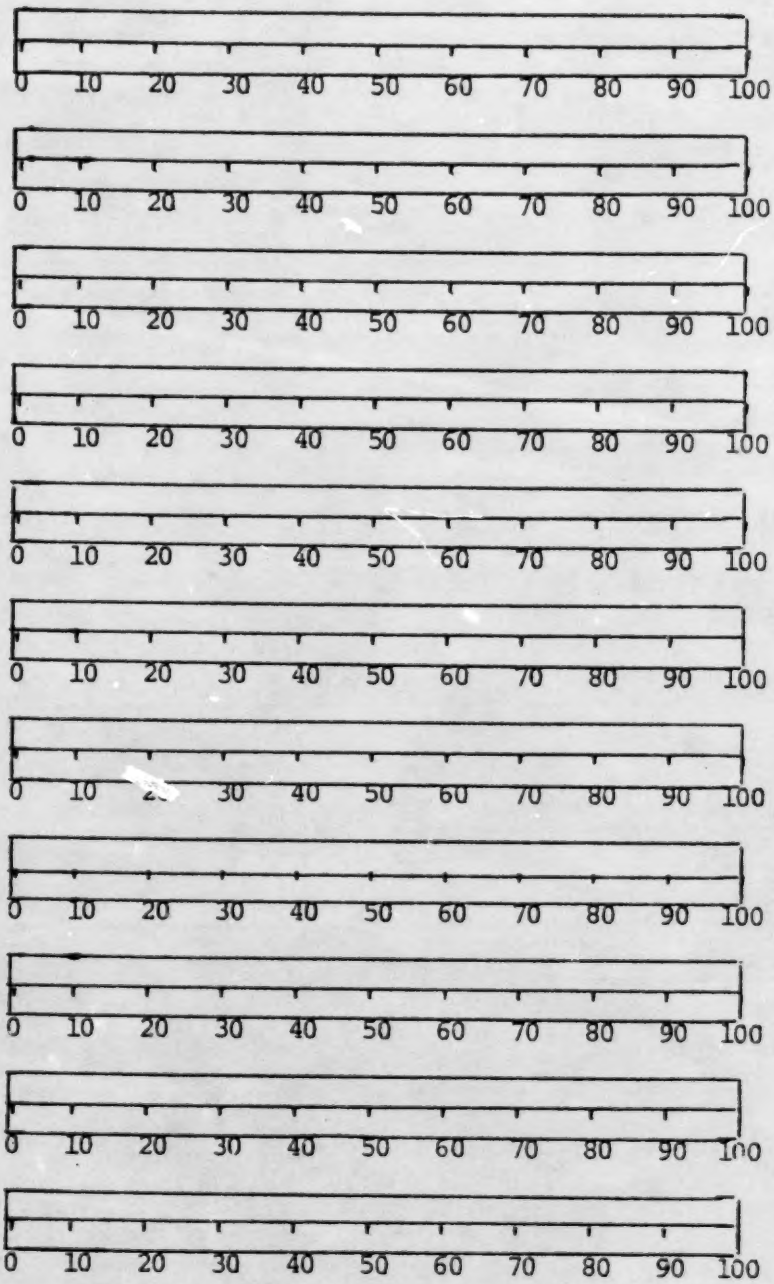
WHAT DO YOU THINK?

1. In 1790 why do you think most people lived on farms?
2. If the urban areas increases, where did these people come from? (Possible answers could include ex-farmers, immigrants, births.)
3. What could be some of the reasons that caused urban growth after 1840? Why?
4. Why do you think so many people live in urban areas today?
5. Do you think the current trend will continue? Why?
6. Where do you plan to live in the future? Why?

SM-VI-2
Springboard #1

RURAL TO URBAN PERCENTAGE CHARTS

1790	Rural	93%
	Urban	7%
1810	Rural	92%
	Urban	8%
1830	Rural	91%
	Urban	9%
1850	Rural	86%
	Urban	14%
1870	Rural	75%
	Urban	25%
1890	Rural	67%
	Urban	33%
1910	Rural	55%
	Urban	45%
1920	Rural	50%
	Urban	50%
1940	Rural	43%
	Urban	57%
1960	Rural	30%
	Urban	70%
1970	Rural	27%
	Urban	73%



Adapted from: U.S. Census Bureau. Graphic Summary of the United States Population. Washington, D.C., 1970.

TM-VI-3

GOAL:

To examine the east-west trends that occurred in the movement of the United States population from 1790 until the present.

OBJECTIVES:

1. The student will investigate the formation of a railroad town: Billings, Montana.

2. The student will form hypotheses explaining the relationship between the east to west population movement and the development of the railroad.

3. The student will form hypotheses that attempt to predict solutions to problems that might arise in a newly formed town.

4. The student will examine a population center map and form hypotheses that will attempt to explain why the population center is moving west and south.

HYPOTHESES:

1. If an area has a perceived need for supplies and communication facilities, then a system of transportation may develop.

2. If an area has a perceived need for supplies and communication facilities and a system of transportation develops, people may move to that area.

3. If the absolute number of people in an area grows more rapidly than the institutions that serve them, the social and political problems will increase in complexity.

4. If a group of people cluster in an area and population growth occurs, then the population center may move outward.

BACKGROUND INFORMATION:

A notable trend in urbanization in the United States is the movement of the center of population from the east to west. The construction of the Trans-continental railroad and the tremendous railroad boom that followed facilitated westward migration. By examining the formation and development of a typical railroad town, today's lesson will focus on the railroad's impact on helping to move people west.

MATERIALS AND EQUIPMENT NEEDED:

..Class copies of Springboard #1 (A Railroad City: The Foundations of Billings, Montana)
..Tape of Springboard #1 (A Railroad City: The Foundations of Billings, Montana)
..Class copies of Springboard #2 (Billings, Montana Worksheet)
..Class copies of Springboard #3 (Center of Population for the United States, 1790-1970)

PROCEDURES:

I. The teacher should distribute Springboard #1 (A Railroad City: The Foundations of Billings, Montana) and have the students read the case study while the tape is playing. After reading the springboard the following questions may be asked.

WHAT DID YOU FIND OUT?

1. Why did some people want a railroad to be built through Montana?
2. How many people did the railroad company want to move to Billings?
3. Where did the land company advertise the land?

WHAT DO YOU THINK?

1. If the land company hadn't persuaded the railroad to build near the Yellowstone River do you think Billings would have become a town? Why or why not?
2. If you were a member of the land company what would you do to keep people coming to the town? Why would you want them to come?
3. Why did the business lots cost more than the other lots? Which lot do you think was located closest to the railroad station? Why?
4. Why would people from New York get on a train with all their belongings and go to Billings, Montana?
5. If there were many western towns that grew like Billings grew, what would happen to the population of the west? Why?

II. The teacher should write the following figures on the board to illustrate the growth of railroads in the United States in the 19th century.

Year	Miles of railroad tracks
1865	35,000
1900	200,000

After the teacher writes the figures the following questions could be asked.

WHAT DO YOU THINK?

1. Do you think the railroad encouraged many people to move west? Why?
2. Do you think there were many railroad towns like Billings, Montana? Why or why not?

III. The teacher should divide the students into groups of 4 or 5. Tell them to pretend they are living in Billings in 1883. At that time there were 800 people living in the area and more were expected. Ask them to imagine what problems a community of that size would have with 800 people and how they as the first citizens of Billings would solve these problems. Give each student a copy of Springboard #2 (Billings, Montana Worksheet) as a guide.

IV. The teacher should give each student a copy of Springboard #3 (Center of Population for the United States, 1790-1970) and also have a wall copy of an United States map. On the United States map have a student point out the section their springboard represents. After the students examine the map the following questions may be used as a basis for discussion.

WHAT DID YOU FIND OUT?

1. What does "center of population" mean?

2. Where was the center of population in 1790?

3. Where is the center of population in 1970?

4. What two directions is the center of population moving?

WHAT DO YOU THINK?

1. Where do you think the center of population will be in 1980? Why?

2. Why do you think the center of population has moved in the direction it has?

3. Where would you like to live in 1980? Why?

4. If many people felt like you would that affect the movement of the population center? Why or why not?

SM-VI-3
Springboard #1

A RAILROAD CITY: THE FOUNDATIONS OF BILLINGS, MONTANA

By 1877 the development of mining had brought many people to western Montana but there were few people living in the eastern part of the state. After 1877 more settlers came to Montana to be cattlemen. As their number grew, the demand for supplies, communication facilities, and transportation became greater.

Before 1882 the Northern Pacific Railroad Company was aware of the fact that a town had to be built in the Yellowstone Valley. One man they got to help support the idea was Frederick Billings former president of the National Pacific Railroad and one of the largest and most influential stockholders in the railroad company at the time. A group of men agreed to put up $200,000 to buy land if the railroad would be built. On April 1, 1882, the group of men and the railroad agreed on the townsite and a contract was made. The group of men formed a land company and bought the land near the site of the railroad.

The townsite was laid out in the fall of 1881. It was located on the north side of the Yellowstone River. They named the town after Frederick Billings. The land company divided the site into streets, avenues, and parks on a scale for a city of twenty thousand inhabitants. Lots and farmland were advertised as far east as St. Paul, Chicago and New York. According to reports they wanted to build a town of 1,000 people.

The boom was on! Four hundred fifty families from Wisconsin were supposed to arrive. People came so rapidly that the company had difficulty in satisfying buyers. Many people were buying lots. The price of lots averaged $100 and the choice business lots sold for as much as

$500. People were coming so fast that it took "a very likely reporter nowadays to 'keep track' of all arrivals" in Billings. In 1882 it was estimated that there were 800 people in town and 2000 people owned the lots in the townsite. By that date some houses had been built and the other people were living in tents.

Adapted from: Kramer, Paul and Frederick L. Holborn, eds. The City in American Life. New York: G.P. Putnam's Sons, 1970.

SM-VI-3
Springboard #2

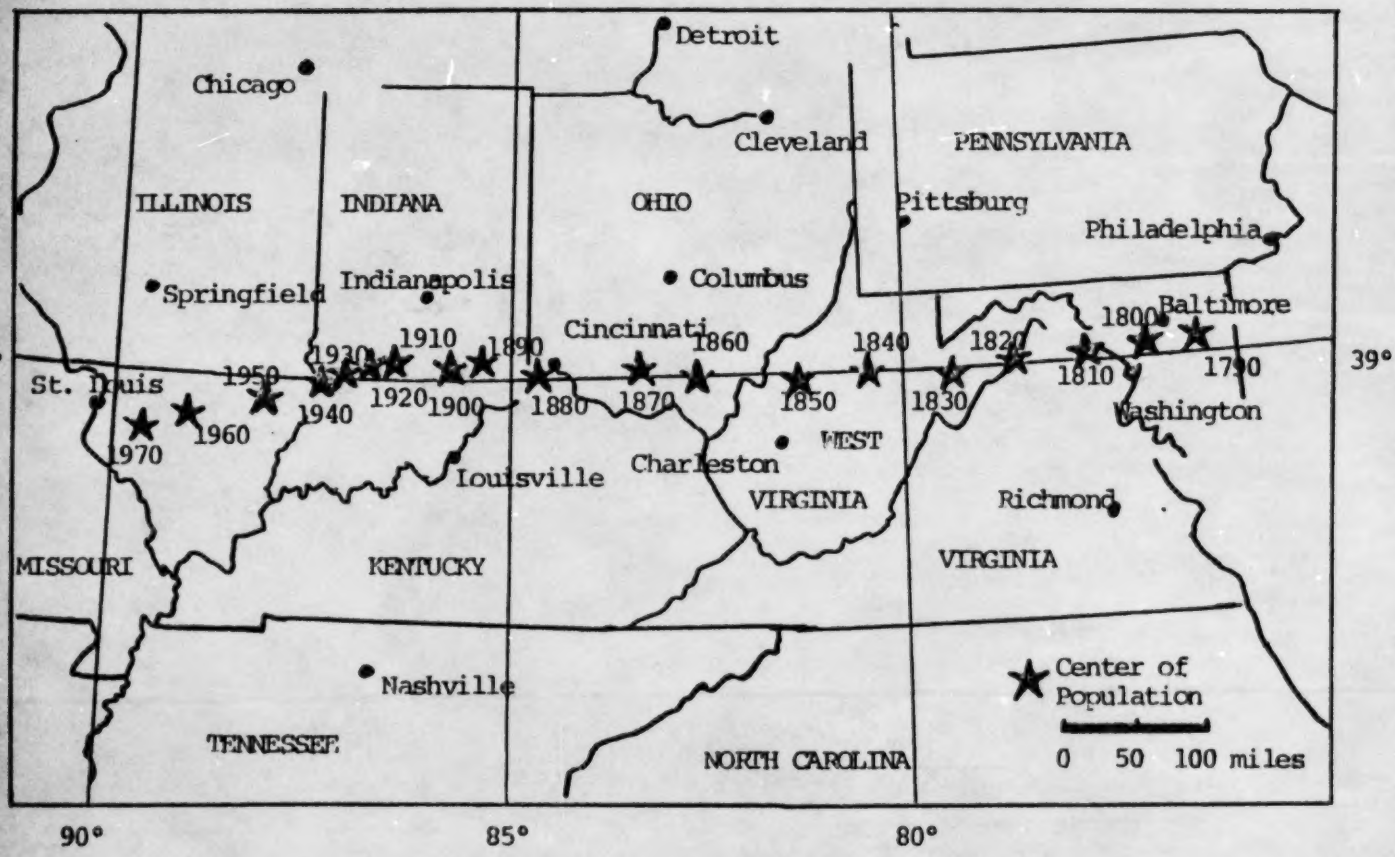
BILLINGS, MONTANA WORKSHEET

Pretend you are one the first settlers moving to this area. More people are coming everyday. What are some situations that might arise in your new town that you need to be aware of. Remember nobody has lived there before. As a group list some possible situations and how you would handle them.

SITUATIONS	SOLUTIONS

SM-VI-3
Springboard #3

CENTER OF POPULATION FOR THE UNITED STATES, 1790-1970



Adapted from: U. S. Census Bureau. Graphic Summary of the United States Population. Washington, D.C., 1970.

TM-VI-4

GOAL:

To examine the relationship between industrialization and urbanization in the United States.

OBJECTIVES:

1. The student will examine the rise of the auto industry and will form hypotheses explaining how this industry might have affected population growth in urban areas.

2. The student will compare and contrast the average annual earning of workers in rural and urban areas.

HYPOTHESIS:

As a country becomes industrialized the proportion of the population living in rural areas will decrease, and the proportion of the population living in urban areas will increase.

BACKGROUND INFORMATION:

Between 1860 and 1900 American urban areas were growing twice as fast as the total population. Urbanization is a world-wide phenomenon associated with industrialization. When industrial cities developed, they were essentially the product of the mine, the factory, the steamship and the railroad. Once established, cities grew by a self-generating process. Numerous social, economical, and political facilities were developed to serve the people: industry, banks and insurance companies, docks and warehouses. These in turn attracted more industry and the need for more workers. Today's lesson will focus on the development of industry and its possible effect on population growth in the urban areas.

MATERIALS AND EQUIPMENT NEEDED:

..Copies of Springboard #1 (The Rise of the Auto Industry)
..Copies of Springboard #2 (Average Annual Earnings in Manufacturing and Farm Labor, 1890-1926)

PROCEDURES:

I. The teacher should hand out Springboard #1 (The Rise of the Auto Industry) and let the students read it. The following questions can be used as a basis for discussion.

WHAT DO YOU THINK?

1. What were some advantages of Ford's assembly line process?
2. Why do you think the price of the Model T dropped from $850 in 1908 to $290 in 1924?
3. Until 1927 Henry Ford only produced one car model in one color only. Why would he do this?
4. If you were Henry Ford, what type of city would you want to build your factory in? Why? (After the students list the criteria, point to Detroit on the map and see if Detroit fits the students' criteria.)
5. What do you think happened to the population of Detroit after Henry Ford started mass producing the automobile? Why?
6. From where would the workers for his factories come? Why?
7. What are some other businesses that might develop in Detroit because of the development of the auto industry? Why?
8. What are some industries in other cities that might develop as a result of the automobile industry?
9. How would the development of these industries and businesses affect population growth in those particular areas? Why?
10. If there were many industries developing in the United States like the automobile industry, what would happen to the population of the cities? Why? (Refer back to SM-VI-2, Springboard #1 to check rural to urban trend.)

II. The teacher should give the students a copy of Springboard #2 (Annual Average Earnings in Manufacturing and Farm Labor, 1890-1926) and the following questions could be asked.

WHAT DO YOU THINK?

1. If you were a farmer during the period 1896 to 1926, would you like to move to the city to work in industry? Why or why not?

2. Do you think many farmers did move to the city? (Refer back to SM-VI-2, Springboard #1, to check the rural to urban trend during this time period.

BEST COPY AVAILABLE

SM-VI-4
Springboard #1

The famous
F O R D
M O D E L T
Yours for less than
$ 3 0 0
Be the first on your block to travel in comfort and luxury. Drive through the twentieth century in Henry Ford's finest invention!

THE RISE OF THE AUTO INDUSTRY

Many people wanted to build cars. A young man named Henry Ford built one of the first successful ones. A friend of Ford's described the day in 1896 when his first car actually ran:

> I have heard from him and Mrs. Ford the story of the last forty-eight hours that he worked on that first car. Forty-eight hours without sleep. The second night Mrs. Ford sat up waiting the outcome of his efforts. The machine was nearing completion. Would it run? It was about 2 A.M. when he came in from the little shop that stood in the rear of the house. The car was finished and ready for a try-out. It was raining. Mrs. Ford threw a cloak over her shoulders and followed him to the shop. He rolled the little car out into the alley, started it, mounted the seat and drove off. The car went a short distance and stopped. The trouble was a minor one. The nut of a bolt had come off. It seems that there was some vibration in that first machine....

The problem was corrected and the car was a success. Ford and other men soon were building cars for sale.

Henry Ford was interested in making cars for average Americans. So he designed a car that was cheap, but sturdy. He concentrated on only one model of car— in only one color. It was called the Model T or "Tin Lizzie."

Henry Ford developed an assembly line. First he made each worker responsible for only one job in putting together a car. Then he speeded up the process by carrying the cars to the workers on a moving belt. As each car passed, each man added his part. The the car continued to the next man. This speed of production was so great that the Ford Company "boasted that

raw iron ore at the docks at eight Monday morning could be marketed as a complete Ford car on Wednesday noon, allowing fifteen hours for shipment."

Henry Ford's system of the assembly line so reduced costs that he could drop the cost of his car. He offered the Model T for $850 in 1908, $540 in 1914, and $290 in 1924. Altogether, Ford produced 15,000,000 Model T's before changes in public taste forced him to close down his factories and design a new model in 1927.

Adapted from: Goldshlag, Patricia, Ed., et al. Many Americans - One Nation. New York: Noble and Noble, 1974.

SM-VI-4
Springboard #2

AVERAGE ANNUAL EARNINGS IN MANUFACTURING AND FARM LABOR 1890 - 1926

Year	Manufacturing	Farm Labor
1896	$ 406	$220
1901	$ 456	$255
1906	$ 506	$315
1911	$ 537	$338
1916	$ 651	$388
1921	$1,180	$522
1926	$1,309	$593

Adapted from: U.S. Bureau of the Census. Historical Statistics of the United States, Colonial Times to 1957. Washington, D. C., 1960.

TM-VI-5

GOAL:

To investigate reasons for the growth or lack of growth of cities in United States history; to examine factors that may have been important to the settlement of cities.

OBJECTIVES:

1. The student will examine the reasons for the selection of the original site of his own community.

2. The student will examine some of the major reasons for the community's growth or failure to grow.

MATERIALS AND EQUIPMENT NEEDED:

..Large scale maps of the local area (available from: local Chamber of Commerce; road atlases; or the United States Geological Survey)
..Colored pencils

PROCEDURES: (It is recommended that if your local area is dominated by a local metropolis that the study be applied to the metropolis.)

I. The teacher should give the students large scale maps of the local area and colored pencils. The students may work individually or in small groups. After the students have examined the maps ask them to mark the important physical features, natural resources and the natural land and water access routes. Following this activity the following questions may be used as a basis for discussion.

WHAT DID YOU FIND OUT?

What are some of the physical features you found in your local area? natural resources? natural land and water access routes?

WHAT DO YOU THINK?

1. Why do you think this particular location would be a good choice for a settlement?

2. What are some of its advantages? disadvantages?

3. What do you think were some of the ways the early settlers made a living?

4. How did these activities make use of the features of the original site?

II. The teacher should have the students, in small groups or individually, mark on the map some of the major changes that have taken place in the local area since its settlement. Some items that could be put on the map are: new industries, downtown commercial core, important shopping centers, major transportation facilities (railroads, highways, airport), public land uses (government buildings, university parks). Also the teacher could have some material available on the history of the development of these industries, etc., to supplement the map activity. After the activity is finished the following questions may be discussed.

WHAT DO YOU THINK?

1. What changes have occurred in your city that would encourage people to move to your area? Why? Discourage people to move to your area? Why?

2. What are some changes that might happen in the future that would keep people moving to your area? Why?

3. In which direction is your city growing?

4. What effects have the land and water features had on shaping this direction?

5. Is any part of your city not growing as rapidly as the other areas? Why do you think this is so?